

WHAT IS CLAIMED IS:

- Sub. A
1. A multifunction display (MFD), comprising:
a bezel having controls located thereon which are adapted for controlling display formats, communication devices, navigational devices, and equipment sensors; and
a display adjacent to the bezel, wherein the display is adapted to include at least one display region having navigation related data, and wherein at least one of the controls is operable to variably select a display format for the at least one display region.
 2. The MFD of claim 1, wherein the display further includes a first and a second display region adapted to provide navigation related data in different display formats.
 3. The MFD of claim 2, wherein the first display region includes a primary display region and the second display region includes an inset overlaid on the primary display region.
 4. The MFD of claim 1, wherein the display format includes a display format selected from the group consisting of a perspective view, a top down view, and a birds-eye view.
 5. The MFD of claim 1, wherein the at least one display region includes navigation related data in a cockpit perspective view, wherein the data include an aircraft nose marker, a set of aircraft wingtip markers, a horizon line, and a number of geographic features.

6. The MFD of claim 5, wherein the at least one display is adapted to be dynamically configurable such that the display illustrates a dynamic motion of the aircraft wingtip markers and the nose marker relative to the horizon line and the other geographical features while the horizon line is maintained in a fixed parallel orientation with a top of the bezel.

sub. a1 7. A cockpit instrument system, comprising:
a first cockpit instrument panel, including a first display enclosed within a first bezel, wherein the first bezel includes controls located thereon which are adapted for controlling display formats, communication devices, navigational devices, and equipment sensors, and wherein the first display is adapted to include a number of display regions having navigation related data, wherein at least one of the controls is operable to variably select a display format for the number of display regions, wherein a geographical data presentation fills the entire first display, and wherein a partial compass rose is directly overlaid on the geographical data presentation; and

a second cockpit instrument panel located adjacent to the first cockpit instrument panel, the second cockpit instrument panel including a second display enclosed within a second bezel, wherein the second bezel includes controls located thereon which are adapted for controlling display formats, communication devices, navigational devices, and equipment sensors, and wherein the second display is adapted to include a number of display regions having navigation related data, and wherein at least one of the controls is operable to variably select a display format for the number of display regions.

8. The cockpit instrument system of claim 7, wherein first display adapted to include a number of display regions having navigation related data includes at least one display region includes navigation related data in a primary display region, and wherein the data in the primary display region includes an aircraft nose marker, a set of aircraft wingtip markers, and a horizon line along with the geographical data presentation.

9. The cockpit instrument system of claim 8, wherein the primary display region can be operated on to provide a display showing the aircraft wingtip markers and nose marker maintained in a fixed parallel orientation with a top of the first bezel and in which the horizon line and the geographical data presentation dynamically move in relation to the aircraft wingtip marker and the nose marker.

10. The cockpit instrument system of claim 7, wherein the second display adapted to include a number of display regions having navigation related data further includes a number of display regions adapted to provide navigation related data in different display formats.

11. The cockpit instrument system of claim 10, wherein the different display formats include display formats selected from the group consisting of a perspective view, a top down view, an instrument view, and a birds-eye view.

12. The cockpit instrument system of claim 10, wherein the number of display regions include a primary display region and a number of secondary display regions, the number of secondary display regions including a number of inset displays overlaid on the primary display region.

13. The cockpit instrument system of claim 12, wherein the controls on second bezel are adapted to switch a display format provided on the primary display region to a display format provided on any one of the number of inset displays, and wherein the controls are adapted to switch a display format provided on any of the number of inset displays to a display format provided on the primary display region.

14. The cockpit instrument system of claim 7, wherein at least one display format for the number of display regions in the first and the second display includes a three dimensional (3-D) display format.

15. The cockpit instrument system of claim 7, wherein at least one display format for the number of display regions in the first and the second displays includes a dynamic image associated with at least one of a weather condition, a terrain condition, and a traffic condition.

16. The cockpit instrument system of claim 7, wherein the first cockpit instrument panel is a primary flight display (PFD) and the second cockpit instrument panel is a navigation display (NAV display).

17. The cockpit instrument system of claim 7, wherein the first cockpit instrument panel and the second instrument panel are positioned side by side, and wherein the system further includes an audio instrument panel located between the first cockpit instrument panel and the second instrument panel.

18. The cockpit instrument system of claim 1, wherein the first bezel and the second bezel further include at least one of transponder controls, GPS controls, autopilot controls, and messaging controls affixed thereon.

19. A cockpit instrument system, comprising:
- a primary flight display (PFD) adapted to simultaneously provide a number of navigation related views in a set of variable display formats, wherein a geographical data presentation fills the entire primary flight display as a background view, and wherein a full horizontal situation indicator (HSI) is directly overlaid on the geographical data presentation;
 - a secondary flight display (MFD) adapted to simultaneously provide a number of navigation related views in a set of variable display formats, wherein the PFD and the MFD are adjacent to one another; and
 - wherein the number of navigation related views in both the PFD and the MFD are dynamically interchangeable.
20. The cockpit instrument system of claim 19, wherein the set of variable display formats for both the PFD and the MFD include variable display formats selected from the group consisting of a perspective view, a top down view, an instrument view, and a birds-eye view.
21. The cockpit instrument system of claim 19, wherein the set of variable display formats for both the PFD and the MFD include at least one dynamic image associated with at least one of a weather condition, a terrain condition, and a traffic condition.
22. The cockpit instrument system of claim 19, wherein the set of variable display formats for both the PFD and the MFD are dependent upon an aircraft type.

23. The cockpit instrument system of claim 19, wherein the PFD and the MFD are positioned side by side having an audio instrument panel located therebetween, and wherein the number of navigation related views in both the PFD and the MFD are dynamically interchangeable upon the activation of a button located on the audio instrument panel.

24. The cockpit instrument system of claim 19, wherein both the PFD and the MFD are adapted to display the number of navigation related views in the set of variable display formats, as previously displayed on either the PFD or MFD, on a remaining one of the PFD and the MFD in the event of a failure of a display screen on either the PFD or MFD.

25. A method for providing navigation related, flight information data in a cockpit, comprising:

dynamically providing a number of display regions, adapted to present navigation related data, on multifunction display (MFD); and

individually controlling a display format for each of the number of display regions using a number of input controls proximately located to the MFD.

26. The method of claim 25, wherein dynamically providing a number of display regions adapted to present navigation related data on a multifunction display (MFD) includes providing a first display region which includes a primary display region having a geographical data presentation filling the entire first display region and a heading indicator directly thereon, and providing a second display region which includes a number of insets overlaid on the primary display region.

27. The method of claim 25, wherein dynamically providing a number of display regions, adapted to present navigation related data, on multifunction display (MFD) includes providing at least one display region having navigation related data in a cockpit perspective view, and wherein the at least one display region includes an aircraft nose marker, a set of aircraft wingtip markers, and a horizon line along with the geographical data presentation.

28. The method of claim 27, wherein the method further includes dynamically configuring the at least one display region such that the display region illustrates a dynamic motion of the horizon line and the geographical data presentation while the aircraft wingtip markers and nose marker maintained in a fixed parallel orientation with a top of the MFD.

29. The method of claim 25, wherein individually controlling a display format for each of the number of display regions using a number of input controls proximately located to the MFD includes dynamically providing a number of different display formats in each of the number of display regions.

30. The method of claim 29, wherein dynamically providing a number of different display formats in each of the number of display regions includes dynamically providing a number of different displays selected from the group consisting of a perspective view, a top down view, an instrument view, and a birds-eye view.

31. The method of claim 25, wherein the method further includes dynamically swapping a display format provided in one of the number of display regions with a display format provided in another one of the number of display regions.

32. The method of claim 25, wherein dynamically providing a number of display regions, adapted to present navigation related data, on multifunction display (MFD) includes providing at least one display region having a dynamic image associated with at least one of a weather condition, a terrain condition, and a traffic condition.

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